

## CLAIMS

1. (currently amended) In an Internet based network with a plurality of registered users, wherein each of said users ~~can be~~ is either or both of a publisher to publish his information to others and a subscriber to subscribe shared information from others, a computer readable storage medium encoded with instructions, which when loaded into a digital computational device establishes a system for sharing digital resources based on a publishing-subscribing model, comprising:

means for designating a subscriber as a member of a publisher's community;

means for creating groups within said publisher's community, each of said groups being based on a predefined sharing relationship between said publisher and the community members of said group;

means for defining a period of time after which a publish offer lapses;

at least one publisher-agent on behalf of said publisher to serve as a gateway for all of said publisher's software applications to send out announcements and process all requests from subscribers and non-subscriber users;

means for processing a non-subscriber user's request for sharing;

means for establishing a limited sharing relationship between a subscriber user and a non-subscriber user;

at least one subscriber-agent on behalf of a community member of said publisher to serve as a gateway for all of said community member's software applications to process requests from said publisher and other subscribers; and

means for delivering different views of a resource to different groups based on different sharing relationships;

wherein whenever said resource is modified by said publisher any local copy of said resource accessible by any member of said publisher's community is automatically updated; and

wherein a subscriber of said resource can ~~modify~~ edit published information in a local copy of said resource, said ~~modified~~ edited published information being overwritten by any update published by said publisher.

2. (previously presented) The computer readable storage medium of Claim 1, wherein each member of said publisher's community belongs to any of:

one of said groups;

more than one of said groups; and

none of said groups.

3. (previously presented) The computer readable storage medium of Claim 1, wherein said sharing relationships are based on any of:

a privilege to receive a copy of said resource from said publisher;

a privilege to read said resource in a central repository; and

a privilege to update said resource.

4. (previously presented) The computer readable storage medium of Claim 1, wherein said means for creating groups further comprises:

means for announcing availability of a view or views of said resource to one or more subscribers who have not yet subscribed to access said view or views;

means for processing any subscriber's request to join any of said groups; and

means for terminating a subscriber or a non-subscriber user from any of said sharing relationships.

5. (previously presented) The computer readable storage medium of Claim 4, wherein said means for processing a non-subscriber user's request comprises an authorization for any of:

one-time sharing;

ongoing sharing;

reject; and

ignore.

6. (previously presented) The computer readable storage medium of Claim 4, wherein said means for processing a subscriber's request further comprises:

means for automatically approving said subscriber's request.

7. (cancelled)

8. (previously presented) The computer readable storage medium of Claim 1, wherein said at least one publisher-agent automatically generates responses according to said publisher's preferences.

9. (previously presented) The computer readable storage medium of Claim 1, wherein said at least one subscriber-agent automatically generates responses according to said community member's preferences.

10. (cancelled)

11. (previously presented) The computer readable storage medium of Claim 1, further comprising a spam control mechanism, said mechanism comprising:

rate limiting policies;

rate limiting notification to a unique receiver;

restriction on number of publishes that can be made in a single transaction; and

restriction on notification messages.

12. (currently amended) A method for sharing digital resources through an Internet based network which has a plurality of registered users, wherein each of said users can be ~~is~~ either or both of a publisher to publish his information to others and a subscriber to subscribe shared information from others, said method comprising the steps of:

a publisher creating one or more views of a resource;

designating a subscriber as a member of said publisher's community;

defining a period of time after which a publish offer lapses;

creating groups within said publisher's community, each group being based on a predefined sharing relationship between said publisher and the community members of said each group;

processing a non-subscriber user's request for sharing;

establishing a limited sharing relationship between a subscriber user and a non-subscriber user;

announcing availability of one or more views of said resource to one or more subscribers of said network;

designating a subscriber who subscribes one or more views of said resource to one or more of said groups;

using at least one publisher-agent on behalf of said publisher to serve as a gateway for all of said publisher's software applications to send out announcements and process all requests from subscribers and non-subscriber users;

using at least one subscriber-agent on behalf of a community member of said publisher to serve as a gateway for all of said community member's software applications to process requests from said publisher and other subscribers;

delivering different views of said resource to one or more of said groups based on different sharing relationships; and

whenever said resource is modified by said publisher, automatically updating any local copy of said resource accessible by any member of said publisher's community;

wherein a subscriber of said resource can ~~modify~~ edit published information in a local copy of said resource, said ~~modified~~ edited published information being overwritten by any published by said publisher.

13. (original) The method of Claim 12, wherein each member of said publisher's community belongs to any of:

one of said groups;

more than one of said groups; and

none of said groups.

14. (original) The method of Claim 12, wherein said sharing relationships are based on any of:

a privilege to receive a copy of said resource from said publisher;

a privilege to read said resource in a central repository; and

a privilege to update said resource.

15. (previously presented) The method of Claim 12, wherein said step for making groups further comprises the steps of:

processing a subscriber's request to join any of said groups; and

terminating a subscriber or non-subscriber user from any of said sharing relationships.

16. (original) The method of Claim 15, wherein said step for processing a non-subscriber user's request comprises a step to allow said non-subscriber user for any of:

one-time sharing; and

ongoing sharing.

17. (original) The method of Claim 16, further comprising the steps of:

keeping said non-subscriber user's request as pending;

rejecting said non-subscriber user's request;

notifying said non-subscriber user the status of his request.

18. (original) The method of Claim 15, wherein said step for processing a subscriber's request comprises a step to allow said subscriber for any of:

one-time sharing; and

ongoing sharing.

19. (original) The method of Claim 18, further comprising the steps of:

automatically approving said subscriber's request;

notifying said subscriber the status of his request.

20. (cancelled)

21. (previously presented) The method of Claim 12, wherein said at least one publisher-agent automatically generates responses according to said publisher's preferences.

22. (previously presented) The method of Claim 12, wherein said at least one subscriber-agent automatically generates responses according to said community member's preferences.

23. (cancelled)

24. (original) The method of Claim 12, further comprising a spam control step to set any of:

rate limiting policies;

rate limiting notification to a unique receiver;

restriction on number of publishes that can be made in a single transaction; and

restriction on notification messages.

25. (currently amended) In an Internet based network with a plurality of registered users, wherein each of said users ~~can be~~ is either or both of a publisher to publish his information to others and a subscriber to subscribe shared information from others, a computer readable storage medium encoded with instructions, which when loaded into a digital computational device establishes a system for hosting an address card service comprising:

means for a publisher to set up an address card having multiple views, each of said views being associated with a different label which, when being clicked, brings said associated view to the front of screen;

means for managing said address card, whereby said publisher designates a sharing relationship to one or more groups of subscribers;

means for defining a period of time after which a publish offer lapses;

means for publishing said address card to a number of selected subscribers based on different sharing relationships; and

means for updating local copies of said address card possessed by said subscribers;

wherein a subscriber of said publisher's address card can ~~modify~~ edit published information in a local copy of said address card, said ~~modified~~ edited published information being overwritten by any update published by said publisher based on an on-going subscription; and

wherein when said publisher chooses to publish to a recipient who is not a registered member of said Internet based network, a notification along with an image of said publisher's address card is sent to said recipient via e-mail, said notification



comprising a first link which enables said recipient to subscribe future modifications of said publisher's address card.

26. (previously presented) The computer readable storage medium of Claim 25, wherein said address card comprises a page for centrally entering said publisher's contact information, and wherein any of said entered contact information is automatically populated to one or more of said views.

27. (previously presented) The computer readable storage medium of Claim 26, wherein one of said views is designated as a default view.

28. (previously presented) The computer readable storage medium of Claim 25, wherein each of said views can be published separately or in combination with other one or more of said views.

29. (previously presented) The computer readable storage medium of Claim 25, wherein each of said views is based on a template containing a set of predefined fields.

30. (previously presented) The computer readable storage medium of Claim 25, wherein one or more of said views can be customized.

31. (previously presented) The computer readable storage medium of Claim 25, wherein said means for setting up an address card further comprising:

a virtual button whereby said publisher sets his preferences; and

a virtual button whereby said publisher accesses help information.

32. (previously presented) The computer readable storage medium of Claim 25, wherein means for managing said address card further comprising:

a virtual button whereby said publisher sets his preferences;

a virtual button whereby said publisher accesses help information;

a dropdown menu showing all categories of contacts in said publisher's address book;

a look up window for searching a subscriber by name;

a virtual button for adding a new contact;

a virtual button for editing said publisher's address card; and

a preview hyperlink for each view of said address card, said preview hyperlink linking to a list of subscribers selected for accepting said view.

33. (previously presented) The computer readable storage medium of Claim 32, further comprising:

means for adding said publisher's self-expression elements into said address card.

34. (original) The system of Claim 32, further comprising:

means for setting parental control to prevent children from handling said address card.

35. (previously presented) The computer readable storage medium of Claim 25, wherein said publisher can view any of:

an accepted subscription;

a rejected subscription; and

a pending subscription.

36. (previously presented) The computer readable storage medium of Claim 35, wherein said publisher can un-publish to any of said subscribers.

37. (cancelled)

38. (previously presented) The computer readable storage medium of Claim 25, wherein said means for publishing is any of:

an e-mail;

an immediate popup from an instant messaging system;

an indicator in an online address book; and

a popup at sign-on.

39. (previously presented) The computer readable storage medium of Claim 25, wherein any of said subscribers receiving a publish offer may take any action of:

rejecting said offer;

accepting said offer by subscribing said publisher's address card; and

accepting said offer by subscribing said publisher's address card and at the same time reciprocating with a publication of said subscriber's address card to said publisher.

40. (previously presented) The computer readable storage medium of Claim 39, wherein a recipient of a publish offer may choose from preferences to automatically subscribe any address card being offered.

41. (cancelled)

42. (previously presented) The computer readable storage medium of Claim 25, wherein said notification comprises a second link which enables said recipient to reciprocate said publisher with contact information.

43. (previously presented) The computer readable storage medium of Claim 25, wherein said means for updating further comprising:

means for displaying said address card with all data fields editable so that said publisher modifies part or all of entered contact information;

a virtual button, by clicking which said publisher is prompted to a confirmation screen wherein said publisher decides whether or not to update said address card in said selected subscribers based on different sharing relationships; and

a hyperlink which takes said publisher to a screen where said publisher can reset groups, sharing relationships and views of said address card.

44. (previously presented) The computer readable storage medium of Claim 43, wherein said publisher can choose whether a modification on said publisher's address card triggers a notification to said selected subscribers.

45. (previously presented) The computer readable storage medium of Claim 44, wherein said notification comprises details of changes made to said publisher's address card.

46. (previously presented) The computer readable storage medium of Claim 25, wherein said address card is incorporated into said publisher's address book from which said selected subscribers' e-mail addresses are extracted.

47. (previously presented) The computer readable storage medium of Claim 46, wherein said address book comprises a virtual button, by selecting a screen name from said address book and then clicking said virtual button, said publisher is prompted to a

screen of an editable address card where said publisher completes the contact information of a new contact associated with said selected screen name.

48. (previously presented) The computer readable storage medium of Claim 47, wherein when said publisher publishes to a recipient not in said publisher's address book, said recipient's e-mail address is automatically added into said publisher's address book.

49. (previously presented) The computer readable storage medium of Claim 47, wherein when said publisher deletes any of said subscribers from said publisher's address book, said deleted subscriber's subscription to said publisher's address card is terminated.

50. (previously presented) The computer readable storage medium of Claim 49, wherein when a subscriber of said publisher's address card chooses to delete said publisher's address card, said subscriber's subscription to said publisher's address card is terminated.

51. (previously presented) The computer readable storage medium of Claim 47, wherein said screen of an editable address card comprises:

a drop down menu for setting a group for said new contact;

a save button for saving entered data; and

a hyperlink which takes said publisher to a screen for designating which view of said publisher's address card to be shared with said new contact.

52. (previously presented) The computer readable storage medium of Claim 47, further comprising a screen wherein said publisher can add a subscriber of said address card into said address book or remove a subscriber of said address card from said address book.

53. (previously presented) The computer readable storage medium of Claim 52, wherein any registered user of said network who receives a copy of said publisher's address card in an e-mail can save said address card into said any registered user's address book by clicking an accept link embedded in said e-mail.

54. (previously presented) The computer readable storage medium of Claim 52, wherein any registered user of said network who receives a copy of said publisher's address card in an e-mail can save said address card into said any registered user's address book and at the same time share his own address card with said publisher by clicking an accept and share link embedded in said e-mail.

55. (previously presented) The computer readable storage medium of Claim 46, wherein said publisher may choose from preferences to automatically publish said publisher's default address card by sending a publish offer to anyone included in said publisher's address book.

56. (previously presented) The computer readable storage medium of Claim 46, wherein information in said publisher's address card is accessible from a current subscriber's address book either online or offline.

57. (previously presented) The computer readable storage medium of Claim 46, wherein separately subscribed views of said publisher's address card are merged as a single entry in a subscriber's address book.

58. (previously presented) The computer readable storage medium of Claim 46, further comprising:

means for detecting a duplicate entry of said publisher's screen name in a subscriber's address book;

wherein when said duplicate entry is detected, said subscriber can choose to overwrite said duplicate entry with said publisher's address card or keep said publisher's address card as a separate entry.

59. (previously presented) The computer readable storage medium of Claim 46, wherein when a subscriber forwards said publisher's address card to a third party, a one-time copy of said publisher's address card is added to said third party's address book if said third party chooses to accept.

60. (previously presented) The computer readable storage medium of Claim 59, wherein said publisher can set a parameter on said address card, preventing a subscriber from forwarding said address card.

61. (cancelled)

62. (previously presented) The computer readable storage medium of Claim 25, wherein a subscriber of said publisher's address card can choose to un-subscribe at any time.

63. (currently amended) A method for providing a digital address card service through an Internet based network which has a plurality of registered users, wherein each of said users ~~can be~~ is either or both of a publisher to publish his information to others and a subscriber to subscribe a published address card from others, said method comprising the steps of:

a publisher configuring an address card, said address card having multiple views, each of said views being associated with a different label which, when being clicked, brings said associated view to the front of screen;

designating a sharing relationship to one or more groups of subscribers;

defining a period of time after which a publish offer lapses; and

publishing said address card to a number of selected subscribers based on designated sharing relationships;

wherein a subscriber of said publisher's address card can edit ~~modify~~ published information in a local copy of said address card, said edited ~~modified~~ published information being overwritten by any update published by said publisher based on an on-going subscription; and

wherein when said publisher chooses to publish to a recipient who is not a registered member of said Internet based network, sending a notification along with an image of said publisher's address card to said recipient via e-mail, said notification comprising a first link which enables said recipient to subscribe future modifications of said publisher's address card.

64. (previously presented) The method of Claim 63, wherein said step of configuring further comprises the step of:

entering said publisher's contact information from a central entry page;

wherein any of said entered contact information is automatically populated to one or more of said views.

65. (original) The method of Claim 64, further comprising the step of:

designating one of said views as a default view.

66. (original) The method of Claim 63, wherein each of said views can be published separately or in combination with any other one or more of said views.

67. (original) The method of Claim 63, wherein each of said views is based on a template containing a set of predefined fields.



68. (original) The method of Claim 63, wherein said step for configuring comprises the step of:

customizing one or more of said views.

69. (original) The method of Claim 63, wherein said step for configuring further comprises the step of:

setting preferences.

70. (original) The method of Claim 63, wherein said step for configuring further comprising the step of:

adding said publisher's self-expression elements into said address card.

71. (original) The method of Claim 63, wherein said step for configuring further comprising the step of:

setting parental control to prevent children from handling said address card.

72. (original) The method of Claim 63, wherein said publisher can view any of:

an accepted subscription;

a rejected subscription; and

a pending subscription.

73. (previously presented) The method of Claim 72, further comprising the step of:

un-publishing to one or more of said subscribers.

74. (previously presented) The method of Claim 63, wherein said step for publishing is any of:

sending a pre-populated e-mail;

invoking an immediate popup from an instant messaging system;

highlighting an indicator in an online address book; and

invoking a popup at sign-on.

75. (previously presented) The method of Claim 63, wherein any of said subscribers who receive a publish offer may take any action of:

rejecting said offer;

accepting said offer by subscribing said publisher's address card; and

accepting said offer by subscribing said publisher's address card and at the same time reciprocating with a publication of said subscriber's address card to said publisher.

76. (previously presented) The method of Claim 75, wherein a recipient of a publish offer may choose from preferences to automatically subscribe any address card being offered.

77. (cancelled)

78. (previously presented) The method of Claim 63, wherein said notification comprises a second link which enables said recipient to reciprocate said publisher with contact information.

79. (previously presented) The method of Claim 63, wherein said step for configuring further comprises the steps of:

modifying said address card; and

configuring update policies.

80. (previously presented) The method of Claim 79, wherein said step for configuring update policies further comprises the step of:

choosing whether a modification on said publisher's address card triggers a notification to said selected subscribers.

81. (previously presented) The method of Claim 80, wherein said notification comprises details of changes made to said publisher's address card.

82. (previously presented) The method of Claim 63, wherein said address card is incorporated into said publisher's address book from which said selected subscribers' e-mail addresses are extracted, and wherein said address book comprises a virtual button, by selecting a screen name from said address book and then clicking said virtual button, said publisher is prompted to a screen of an editable address card where said publisher completes the contact information of a new contact associated with said selected screen name.

83. (previously presented) The method of Claim 82, wherein when said publisher publishes to a recipient not in said publisher's address book, said recipient's e-mail address is automatically added into said publisher's address book.

84. (previously presented) The method of Claim 82, wherein when said publisher deletes any of said subscribers from said publisher's address book, said deleted subscriber's subscription to said publisher's address card is terminated.

85. (previously presented) The method of Claim 84, wherein when a subscriber of said publisher's address card chooses to delete said publisher's address card, said subscriber's subscription to said publisher's address card is terminated.

86. (previously presented) The method of Claim 82, wherein said screen of an editable address card comprises:

a drop down menu for setting a group for said new contact;

a save button for saving entered data; and

a hyperlink which takes said publisher to a screen for designating which view of said publisher's address card to be shared with said new contact.

87. (previously presented) The method of Claim 82, further comprising the steps of:

adding one or more subscribers of said address card into said address book; and

removing one or more subscribers of said address card from said address book.

88. (previously presented) The method of Claim 87, wherein any registered user of said network who receives a copy of said publisher's address card in an e-mail can save said address card into said any registered user's address book by clicking an accept link embedded in said e-mail.

89. (previously presented) The method of Claim 87, wherein any registered user of said network who receives a copy of said publisher's address card in an e-mail can save said address card into said any registered user's address book and at the same time share his own address card with said publisher by clicking an accept and share link embedded in said e-mail.

90. (previously presented) The method of Claim 82, further comprising the step of:

choosing from preferences to automatically publish said publisher's default address card by sending a publish offer to anyone included in said publisher's address book.

91. (previously presented) The method of Claim 82, wherein information in said publisher's address card is accessible from a current subscriber's address book either online or offline.

92. (previously presented) The methods of Claim 82, wherein separately subscribed views of said publisher's address card are merged as a single entry in a subscriber's address book.

93. (previously presented) The method of Claim 82, further comprising the step of:

detecting a duplicate entry of said publisher's screen name in a subscriber's address book;

wherein when said duplicate entry is detected, said subscriber can choose to overwrite said duplicate entry with said publisher's address card or keep said publisher's address card as a separate entry.

94. (previously presented) The method of Claim 82, wherein when a subscriber forwards said publisher's address card to a third party, a one-time copy of said publisher's address card is added to said third party's address book upon said third party's acceptance.

95. (previously presented) The method of Claim 95, wherein said step for configuring further comprising the step of:

setting a parameter on said address card for preventing a subscriber from forwarding said address card.

96. cancelled

97. (previously presented) The method of Claim 63, wherein a subscriber of said publisher's address card can choose to un-subscribe at any time.

98. (New) The computer-readable storage medium of Claim 1, wherein each of said views has metadata describing sharing styles, as well as version, creation date and size, wherein each sharing style corresponds to a specific sharing relationship of the publisher.

99. (New) The method of Claim 12, wherein each of said views has metadata describing sharing styles, as well as version, creation date and size, wherein each sharing style corresponds to a specific sharing relationship of the publisher.

100. (New) The computer-readable storage medium of Claim 25, wherein each of said views has metadata describing sharing styles, as well as version, creation date and size, wherein each sharing style corresponds to a specific sharing relationship of the publisher.

101. (New) The method of Claim 63, wherein each of said views has metadata describing sharing styles, as well as version, creation date and size, wherein each sharing style corresponds to a specific sharing relationship of the publisher.

102. (New) A method for providing a digital address card service through an Internet based network which has a plurality of registered users, wherein each of said users is either or both of a publisher to publish his information to others and a subscriber to subscribe a published address card from others, said method comprising the steps of:

a publisher configuring an address card, said address card having multiple views, each of said views being associated with a different label which, when being clicked, brings said associated view to the front of screen, wherein each of said views has metadata describing sharing-styles, as well as version, creation date and size;

wherein configuring said address card comprises entering said publisher's contact information from a central entry page, wherein any of said entered contact information is automatically populated to one or more of said views, wherein each of said views is based on a template containing a set of predefined fields, customizing one or more of said views, setting preferences, adding said publisher's self-expression elements into said address card, setting parental control to prevent children from handling said address card, modifying said address card, configuring update policies;

wherein said address card is incorporated into said publisher's address book from which said selected subscribers' e-mail addresses are extracted, and wherein said address book comprises a virtual button, by selecting a screen name from said address book and then clicking said virtual button, said publisher is prompted to a screen of an editable address card where said publisher completes the contact information of a new contact associated with said selected screen name;

designating one of said views as a default view;

designating a sharing relationship to one or more groups of subscribers, wherein each of said sharing styles corresponds to a specific sharing relationship of the publisher;

defining a period of time after which a publish offer lapses;

publishing said address card to a number of selected subscribers based on designated sharing relationships by any of sending a pre-populated email, invoking an immediate popup from an instant messaging system, highlighting an indicator in an online address book and invoking a popup at sign-on;

wherein a subscriber of said publisher's address card can edit published information in a local copy of said address card, said edited published information being overwritten by any update published by said publisher based on an on-going subscription;

wherein any of said subscribers who receive a publish offer may take any action of rejecting said offer, accepting said offer by subscribing said publisher's address card and accepting said offer by subscribing said publisher's address card and at the same time reciprocating with a publication of said subscriber's address card to said publisher; and wherein a subscriber of said publisher's address card can choose to un-subscribe at any time;

viewing by said publisher any of an accepted subscription, a rejected subscription and a pending subscription;

wherein when said publisher chooses to publish to a recipient who is not a registered member of said Internet based network, sending a notification along with an image of said publisher's address card to said recipient via e-mail, said notification comprising a first link which enables said recipient to subscribe future modifications of said publisher's address card, wherein said notification comprises a second link which enables said recipient to reciprocate said publisher with contact information.